

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/IB2004/052068

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 H01L21/68 H01L23/31

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H01L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 847 458 A (NAKAMURA ET AL) 8 December 1998 (1998-12-08)	5-8, 10
Y	column 13, lines 34-55; figures 9, 10, 39, 40, 49-54 column 22, line 34 - column 23, line 64	1-4, 9
Y	EP 1 143 509 A (SANYO ELECTRIC CO., LTD) 10 October 2001 (2001-10-10) paragraphs '0072! - '0104! paragraphs '0115! - '0123!	1-4, 9
A	US 6 451 627 B1 (COFFMAN SAMUEL L) 17 September 2002 (2002-09-17) the whole document	1-9
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
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- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*&\* document member of the same patent family

Date of the actual completion of the international search

6 April 2005

Date of mailing of the international search report

21/04/2005

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>PATENT ABSTRACTS OF JAPAN vol. 1999, no. 14, 22 December 1999 (1999-12-22) &amp; JP 11 251505 A (MATSUSHITA ELECTRON CORP), 17 September 1999 (1999-09-17) abstract</p> <p>-----</p>	1-9

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 5847458	A	08-12-1998	JP	9312355 A	02-12-1997
			JP	9321173 A	12-12-1997
			KR	250560 B1	01-04-2000
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			EP	1143509 A2	10-10-2001
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US 6451627	B1	17-09-2002	JP	2001110945 A	20-04-2001
			TW	456014 B	21-09-2001
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JP 11251505	A	17-09-1999	NONE		
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